

FETISOVA, T.V.; SHAMRAY, Ye.F.

Effect of galascorbine and thiamine on the restoration of injured muscles. Ukr.biokhim.zhur. 31 no.4:562-569 '59. (MIRA 13:1)

1. Kiyev Medical Institute, Department of Biochemistry.  
(VITAMINS) (REGENERATION (BIOLOGY))

SHAMRAY, Ye.F.; FETISOVA, T.V.

Interaction of vitamins C, P and B-1. Biul. eksp. biol. i med. 49  
no.1:70-74 Ja '60. (MIRA 13:7)

1. Iz kafedry biokhimii (zav. - prof. Ye. F. Shamray) Kiyevskogo  
meditsinskogo AMN SSSR V.N. Chernigovskim.  
(VITAMINS)

FETISOVA, T.V.

Effect of a prolonged application of a tourniquet on energy metabolism of the muscles of the extremities in rabbits.  
Eksp. khir. i anest. 9 no.3:54-56 My-Je '64.

(MIRA 18:3)

1. Kafedra biokhimii (zav. - prof. Ye.F. Shamray) Kiyevskogo meditsinskogo instituta.

FETISOVA, T.V. [Fetysova, T.V.]; KHOMITSKAYA, L.F. [Khomits'ka, L.F.];  
TSIOMIK, V.A.

Reactive changes in the metabolism of infarction and peri-  
infarction portions of the heart in dogs. Fiziol. zhur. [Ukr.]  
10 no.1:61-67 '64. (MIRA 17:8)

1. Otdel biokhimii Ukrainskogo instituta klinicheskoy medi-  
tsiny im. akademika Strazheskogo, Kiyev.

AVDEYEVA, A.A., inzh.; FETISOVA, V.N., tekhnik

Preparation of control mixtures for calibrating chromatographic  
gas analyzers. Teploenergetika 11 no. 1:94-96 Ja '64.  
(MIRA 17:5)

1. Energeticheskiy institut im. G.M.Krzhizhanovskogo.

FETISOVA, V.P.

"The Effectiveness of a Room Disinfectant Produced by Evaporating 5% Formalin at 53-60° and a Comparative Evaluation of the Given Method With Others." Cand Med Sci, Leningrad State Order of Lenin Inst for the Advanced Training of Physicians imeni S.M.Kirov, Leningrad, 1955. (KL, No 18, Apr 55)

SO: Sum.No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

9,3260

S/109/60/005/07/017/024

E140/E163

AUTHORS: Zhabotinskiy, M.Ye., Levkin, L.V., Sverchkov, Ye.I.,  
and Fetisova, V.R.

TITLE: Model of a Caesium Frequency Standard

PERIODICAL: Radiotekhnika i elektronika, Vol 5, No 7, 1960,  
pp 1173-1176 (USSR)

ABSTRACT: In accordance with a recommendation of the Twelfth General Assembly of the International Radio Scientific Union the comparison of a molecular generator with a caesium standard within a single laboratory has been undertaken. Two models of an atomic frequency standard using an atomic caesium beam have been developed at the Institute of Radio Engineering and Electronics of the Academy of Sciences, USSR. In this system the ultra-fine structure in the atomic caesium spectrum is used, employing two closely located levels between which transitions occur at a frequency of about 9192 Mcs. In a weak magnetic field these levels are subjected to Zeeman splitting. The system consists of a copper tube 12 mm in diameter, 1200 mm long, in which a high vacuum is maintained. The magnetic field of the system is uniform to within 0.1 oe. The spectral line width is 300 cps, the signal/noise ratio about 100. There are 4 figures and 15 references of which 12 are English and 3 Soviet.

SUBMITTED: January 3, 1960.

Card 1/1

12. V.  
FEL'DMAN, S.P., kand.med.nauk; FETISOVA, Ye.V.

Menieres disease and essential vestibulopathy as independent nosologic forms [with summary in English]. Vest.oto-rin. 19 no.6:25-31 M-D '57

(VESTIBULAR APPARATUS, dis.

(MIRA 11:3)

essential vestibulopathy, as independent entity  
differentiation from Meniere's dis.)

(MENIERE'S DISEASE, differ diag.

from essential vestibulopathy as independent entity)



FEL'DMAN, S.P., kand.med.nauk; FETISOVA, Ye.V.

Significance of the conditioned reflex component in the genesis  
of vestibular reactions, in particular nystagmus. Vest.otorin.  
no.6:55-61 '61. (MIRA 15:1)

1. Iz kliniki bolezney ukha, nosa i gorla (zav. - prof. I.P.  
Potapov) Tsentral'nogo instituta usovershenstvovaniya vrachev  
na baze 4-y Gorodskoy klinicheskoy bol'nitsy, Moskva.  
(NYSTAGMUS) (VESTIBULAR APPARATUS) (CONDITIONED RESPONSE)

TOPIC TAGS: machinability, molybdenum alloy, high speed steel, carbide tool, cutting tool, cutting fluid, tool geometry, tool life, metal machining

L 34907-65

ACCESSION NR: AP5008246

low speeds (20 m/min max) but raises it at higher speeds (20—130 m/min). Cutting

and high-speed steel or carbide reamers are used for drilling, tapping and reaming molybdenum alloys. Orig. art. has: 8 figures. [SS]

CLASSIFICATION: none

ENCL: 20

REF: 100

THRE

1000000

Card 2/2

FETSOVICH, I., inzh.

Layout of junctions of bridges and roadways with approaches.

Avt.dor. 28 no.6:17-29 Je '65.

(MIRA 18:8)

FETITA, Mihai

Raising the qualifications to the level of the present requirements of production. Munca sindic 7 no.5:12-14 My '63.

1. Presedinte al comitetului sindicatului de la uzinele Industria Sirmei din Cimpia Turzii.

FETITICH, V.

Yugoslavia (430)

Administration for the Improvement of Production attached to the planning Commission of Slovenia. Summaries in English. Articles classified according to decimal classification). Vol. 1, no. 2-3-4-, Dec. 1, 1950.

East European Accessions List. Library of Congress, Vol. 1, no. 13 November, 1952.

UNCLASSIFIED.

"Card 2 of 2 "

FETOV, Vladimir Pavlovich; VADEYEV, O., red.; PETROVSKAYA, E., red.;  
DANILINA, A., tekhn. red.

[American imperialism in Africa] Amerikanskii imperialism v  
Afrike. Moskva, Gos, izd-vo polit. lit-ry, 1962. 101 p.  
(MIRA 15:3)

(United States--Foreign economic relations--Africa)

(Africa--Foreign economic relations--United States)

FETR, Walter

Transportation and its problems. Zel dop tech 12 no.9:239-240 '64.

1. Deputy Chief of Operations, Mlada Boleslav Railroad Station.



FETSKO

Poland / Analytical Chemistry.  
Analysis of Organic Substances.

E-3

Abs Jour: Ref. Zhur - Khimiya No. 2, 1958, 4386

Author : Kalinovsky, Bershtel', Fetsko, Sveshkhovsky

Title : The Quantitative Micro-and Macro-Determination of Methyl Thiouracil (2-thio-4-oxy-6-methylpyrimidine) by Coulometric and Permanganate-Bromometric Methods

Orig Pub: Acta polon. pharmae., 1957, 14, No. 2, 77-83

Abstract: The permanganate-bromometric determination of methyl thiouracil (I) is carried out in a bromoscope consisting of a conical flask to which a fermentation tube (FT) and separatory funnel (SF) are tightly connected. First, into the flask, 50 ml. of 0.1N  $\text{KMnO}_4$  (II) and 10 ml. of 10% KBr

Card 1/3

Poland / Analytical Chemistry.  
Analysis of Organic Substances.

E-3

Abs Jour: Ref. Zhur - Khimiya No. 2, 1958, 4386

solution are poured in. Secondly, 3 ml. of 0.1N  $\text{As}_2\text{O}_3$  (III) solution is introduced into the FT, then added from the SF, 10 ml. of 25% HCl solution (IV) and also 25-50 mg. of the sample dissolved in 5 ml. of a 10% NaOH solution (V). The SF is washed with water and the bromoscope is left for 60 minutes in the dark at 20°C. with frequent agitation. Then III is added in the amount needed to decolorize the solution and the contents, including the solution in the FT, are titrated with II in the presence of methyl red. 1 g-mole of I reduces 12g/atom of Br. The error of the determination is  $\pm 0.9\%$ . The coulometric determination of I is performed at 5.5 ma/cm<sup>2</sup> which is the current density on the anode. Into

Card 2/3

FETSKO, Ivan

Wood and chemistry. Khim i industriia 35 no.2:73-74 '63.

FETSOVICH, I., inzhener.

Using hexagonal concrete slabs for road surfacing. Zhil.-kom.  
khoz. 7 no.3:24 '57. (MLRA 10:4)

(Road construction) (Concrete slabs)

FIMSOVICH, I., inzh.

Road pavements made of hexagonal concrete slabs. Avt.dor. 21 no9:27  
S '58. (MIRA 11:11)

(Pavements, Concrete)

FETSOVICH, I., inzh.

Roadside ponds and reservoirs. Avt.dor. 25 no.11:20 N '62.

(MIRA 15:12)

(Ukraine--Roadside improvement)

FETTBACK, W., dr. med.

Organization and control of health services in the Schonebeck/  
Elbe district of the People's Republic of Germany. Cesk. zdrav.  
11 no.9:393-397 S '63.

(PUBLIC HEALTH)

FETTER, B., inz.

\*Theory of hydrodynamic lubrication\* by O. Pinkus, B. Sternlicht.  
Reviewed by B. Fetter. Strojirenstvi 13 no.5:397-398 My '63.

FETTER, Frantisek

FETTER, Frantisek

Obecna silnopruda elektrotechnika. [Vyd. 2.] Praha, Statni pedagogicke nakl., 1953.  
(Ucebni texty vysokych skol) [General Heavy-current Electrical Engineering. Vol. 3.  
diags.]

SO: Monthly List of East European Accessions, Library of Congress, Vol. 3, No. 4,  
April 1954. Unclassified.



FETTER, Frantisek, prof.

"Electric machines; introduction to the principles" by T. Bodefeld  
[deceased], H. Sequenz. Reviewed by Frantisek Fetter. El tech  
obzor 52 no.6:333-334 Je '63.

FETTER, F., prof. inz. dr.

"Electrical engineering" by V. List. F. Pesak, and others.  
Pt.3. Reviewed by F. Fetter. Strojirenstvi 14 no.10:792  
0 '64.

FETTER, Guido (Praga); ROGOVSKAYA, Ye.R. [translator]

Short survey of the development of mathematics in the Czech  
areas before the White-Mountain Battle. Ist.-mat.issl. no.11:  
461-514 '58. (MIRA 12:1)  
(Czechoslovakia--Mathematics)

FETTER, Mihaly

Industrial students in the trade-union movement. Munka 13  
no.3:26 Mr '63.

1. Helyiipari es Varosgazdalkodasi Dolgozok Szakszervezete  
Budapesti Bizottsaga ifjusagi felelose.

FETTER, Mihaly

Many-sided education of industrial apprentices. Munka 13 no.8:  
36 Ag '63.

1. Helyiipari es Varosgazdalkodasi Dolgozok Szakszervezete  
budapesti szervezesi bizottsaga.

✓  
AVERBUKH, Solomon Khononovich; KNELLER, Il'ya Aronovich; KRUKOVETS, Faina  
Isaakovna; Prinimali uchastiye: FETTER, N.N.; AZBEL', Ya.I..  
BREYTBART, A.Ya., retsenzent, otv.red.; SHCHETININ, A.P., retsen-  
zent; VENGRENYUK, L.I., red.; SHEFER, G.I., tekhn.red.

[Industrial interferences to television and methods for their  
suppression] Industrial'nye pomexhi televideniiu i metody ikh  
podavleniia. Moskva, Gos.izd-vo lit-ry po voprosam svyazi i  
radio, 1960. 66 p. (MIRA 13:5)

1. TSentr tekhnicheskogo radiokontrolya (TsTRK) (for Fetter, Azbel').  
(Television--Interference)

KNELLER, Il'ya Aronovich; KRUKOVETS, Faina Isaakovna; ~~FETTER~~, Natal'ya  
Nikolayevna; LIBERZON, L.G. red.; SLUSKIN, A.A., tekhn. red.

[Industrial interference on the screens of television receivers]  
Industrial'nye pomekhi na ekranakh televizorov. Moskva, Sviaz'-  
izdat, 1962. 65 p. (Biblioteka "Televizionnyi priem," No.4)  
(MIRA 15:10)

(Television--Interference)

KNELLER, Il'ya Aronovich; KRUKOVETS, Faina Isaakovna; FETTER, Natal'ya Nikolayevna; LIBERZON, L.G., red.; SLUTSKIN, A.A., tekhn. red.

[Industrial interference on television screens] Industrial'nye pomekhi na ekranakh televizorov. Izd.2., Moskva, Sviaz'-izdat, 1963. 67 p. (Biblioteka "Televizionnyi priem," no.7)  
(MIRA 16:6)

(Television--Interference)



KNELLER, Il'ya Aronovich; KRUKOVETS, Faina Isaakovna; FETTER,  
Natal'ya Nikolayevna; NOZOVA, M.N., red.

[Industrial interference on television screens] Indu-  
strial'nye pomekhi na ekranakh televizorov. Moskva,  
Sviaz', 1965. 67 p. (Biblioteka "Televizionnyi priem,"  
no.20) (MIRA 18:11)

CZECHOSLOVAKIA

FETTER, V. [affiliation not given].

"Sixtieth Birthday of the Anthropologist Jindrich A. VALSIK"

Prague, Casopis Lekaru Ceskych, Vol CII, No 35, 30 August 63,  
pp 975-976.

Abstract: Jindrich A. VALSIK, MD, born 25 August 1903, is  
head of the Chair of Anthropology and Genetics at the Faculty of  
Natural Sciences (Faculta prirodnych vied), Comenius University,  
Bratislava. A short biography is included.

1/1

8

DITTRICH, J.; LESHY, I.; FETTER, V.; TONOVSKY, V.

Indication and importance of early surgery for craniostenosis.  
Cesk. neur. 20 no. 4:263-276 June 57.

1. Neurologická klinika, Praha, přednosta akademik prof. K. Henner:  
dětské oddělení, vedoucí lékař doc. Dr. Ivan Leshy Oddělení pro  
dětskou chirurgii a orthopedii Praha, přednosta doc. Dr. V. Tonovsky  
Anthropologický ústav MÚ Praha, přednosta doc. Dr. V. Fetter.  
(CRANIUM, abnorm.

craniostenosis, indic. & importance of early surg. (Cz))

FETTER, Vojtech, doc., dr.

Pay attention to the findings while excavating earth. Uhli 4 no.1:  
31 Ja '62.

1. Katedra antropologie prirodovedecke fakulty Karlovy university,

FETTER, V.

Jiri Maly, professor of anthropology at the Charles University. Rozhl.  
chir. 30 no.1:36-37 1951. (CML 20:7)

FETTER, V.

50th anniversary of prof. MUDr et PhDr Vojtech Suk. Cas. lek.  
93 no. 45:1261-1264 5 Nov 54.

(BIOGRAPHIES,  
Suk, Vojtech)

FETTER, V.

Bibliography of works of the anthropologist and ethnographer, University  
Professor Vojtech Sur, M. D., Ph.D., bearer of the Order of Labor. p. 310  
CESKOSLOVENKA ETHNOGRAFIE. Praha.  
Vol. 3, no. 3, 1955

SOURCE: Monthly List of East European Accessions (EEAL), LC, Vol. 5,  
No. 3, March 1956

FETTER, V.; TITLBACHOVA, S.; TRONICEK, CH.

"The evolution of the somatic characteristics of the adult population in Bohemia during the last sixty years and the basic anthropological norms."

p. 209 (Universitas Carolina. Biologica) Vol. 2, no. 2, 1956  
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
April 1958



FETTER, V.; TITLBACHOVA, S.; TRONICEK, CH.

Anthropological survey of the adult population at the first  
all-state Spartakiade. Cas. lek. cesk. 95 no.27:717-721 6 July 56.

1. Anthropologicky ustav Karlovy University.  
(ANTHROPOMETRY,  
of adults in Czech. (Cz))

FETTER, V.

Ethnical differences among the inhabitants of Czechoslovakia as determined on the basis of anthropological research.

p. 217 (Cesjoslovenska Ethnografie) Vol. 5, No. 3 1957. Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC, - Vol. 7, No. 1, Jan 1958

FETTER, V.

Scientific activities of Ales Hrdlicka. Tr. from the Czech.  
p. 80

CZŁOWIEK W CZASIE I PRZESTRZENI.  
Vol. 2, no. 2, 1959  
Warsaw, Poland

Monthly List of East European Accession (EEAI) LC, Vol. 9, no. 1, Jan. 1960

Uncl.

FETTER, Vojtech; HAJNIS, Karel

Basic body dimensions of adults of the 2nd Spartakiade. Acta univ. carol. [med.] 8 no.1:13-31 '62.

1. Katedra antropologie prirodovedecke fakulty University Karlovy v Praze.

(ANTHROPOMETRY)

(SPORTS)

FETTER, V.; PROKOPEC, M.; SUCHY, J.; SOBOVA, A.

Accelerated growth in youth determined by anthropometric studies  
between 1951 and 1961. Cesk. pediat. 18 no.8:673-677 Ag '63.

(ANTHROPOMETRY) (BODY WEIGHT) (GROWTH)

PETTER, V.; LISHKA, M. [Liska, M.]

Pigmentation in patients with malignant tumors. Trudy MOIP. Otd.  
biol. 14:82-91 '64. (MIRA 18:4)

1. Kafedra antropologii fakul'teta yestestvennykh nauk v  
Universitete imeni Karlova v Prage.

Anatomy

CZECHOSLOVAKIA

UDC 616-071.3-053.2(437)

FETTER, V.; SUCHY, J.; PROKOPEC, M.; Complex of the Stations for Anthropometric Research of the Total State Territory (Komplex Pracovist Celostatniho Anthropometrickeho Vyzkumu), State Plan Coordinator (Koordinator ve Statnim Planu) Prof Dr F. BLAZEK.

"New Anthropological Standards of the Development of the Youth in Czechoslovakia."

Prague, Casopis Lekarů Ceskych, Vol 105, No 48, 2 Dec 66, pp 1323 - 1324.

Abstract: Anthropological results obtained in a survey in 1961 are reported. The survey includes height, body weight, head circumference, and chest circumference. The use of the tables is discussed. 7 Czech references. (Manuscript received May 66).

1/1

MATAJC, L.; ~~FETTICH, D.~~

Controlled rehydration. Zdrav. vest., Ljubljana 23 no.11-12:  
279-292 1954.

1. Pediatricna Klinika medicinske visoke šole v Ljubljani-  
Predstojnik doc. dr. Marij Avcin.  
(DEHYDRATION, in inf. & child.  
ther., controlled rehydration (Slov))



FETICH, Janez

The analysis of the incidence of venereal diseases in the  
People's Republic of Slovenia. Zdrav. vest., Ljubljana 23  
no.11-12:320-324 1954.

1. Centralni higienski zavod-direktor dr. Marijan Ahcin.  
Dermato-veneroloska klinika v Ljubljani-predstojnik: prof.  
dr. J. Jaksa.

(SYPHILIS, statist.  
in Slovenia (Slov))

(GONORRHEA, statist.  
in Slovenia (Slov))

FETTICH, Janez, dr.

Essence of eczema. Med. glasn. 9 no.11-22:425-430 Nov-Dec 55

1. Dermatoveneroloska klinika Medicinskog fakulteta u ljubljani  
(upravnik akad. prof. F. Kogoj)  
(ECZEMA,  
(Ser))

FETTICH, J.

Shortening of the minimum contact time in experimental eczema in guinea pigs. Acta med. iugosl. 13 no.3:370-373 '59.

1. Universitatsklinik fur Haut- und Geschlechtskrankheiten in Ljubljana.

(ECZEMA exper.)

FETICH, J., doc., dr; JANEZIC, A., dr

Medication therapy of allergic diseases with antihistaminics and our experience with sandosten calcium. Med. glas. 15 no.12/12a:474-478 D '61.

1. Dermato-veneroloska klinika (Predstojnik: akad. prof. dr F. Kogoj)  
Interna klinika Fakulteta za opcu medicinu i stomatologiju u Ljubljani  
(Predstojnik: akad. prof. dr I. Tavcar) Sanatorij Emona (Zdravstveni  
dom DSNZ) u Ljubljani (Predstojnik: dr J. Benigar)

(ANTIHISTAMINICS ther) (ALLERGY ther)

KOGOJ, Fran; BRNOBIC, Albin; FETTICH, Janez

Diagnosis of allergic diseases. Rad. med. fak. Zagreb. 10 no.1:  
1-24 '62.

(ALLERGY)

FETTICH, V., prof. inz.

Tenth anniversary of the Austrian Foundry Institute. Litar  
vest 11 no. 3:87 '64.

**"APPROVED FOR RELEASE: 08/23/2000**

**CIA-RDP86-00513R000412920019-3**

**APPROVED FOR RELEASE: 08/23/2000**

**CIA-RDP86-00513R000412920019-3"**

FETICH, V.

Fettich, V.; Janiciljevic, D.; Bobar, S. "Shortening the oxidation stage in the refining of copper." p. 14. (Rudarsko-Metalurski Zbornik. No. 1, 1952. Ljubljana.)

SO: Monthly List of East European Accessions. Vol. 3, no. 3. Library of Congress. March 1954.  
Uncl.



FETTICH, V.

"The Yugoslav Production of Metal, Coal, and Power Before and After the War." p. 5.  
(Nova Proizvodnja, Vol. 4, no. 1, Apr., 1953, Ljubljana.)

SO: Monthly List of East European Vol. 2, No. 9,  
Accessions / Library of Congress, September 1953, Uncl.

FETTICH, VIKTOR

✓ 2320\* The Alloy Al Zn5.5 Mg2 Cu2 (Cr) and Its Peculiarities. Zlittina Al Zn5.5 Mg2 Cu2 (Cr) in njeno posebnosti. (Slovenian.) Viktor Fettich and ~~Anton Hribanc~~ <sup>Budarstvo</sup> metaluriki zbornik, 1955, no. 3, p. 187-201. MG

Small amounts of Cr were added to an alloy. Properties and forming characteristics were determined. Best results were obtained by solution-heating at 475 C for 20 to 30 min. quenching in cold water and age-hardening for 16 to 18 hr. at 120 C. Graphs, tables, 3 ref.

① of

S/137/62/000/002/023/14  
A006/A101

AUTHOR: Fettich, V.

TITLE: Development of Yugoslavian metallurgy

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 2, 1962, 2, abstract 2G11  
("Livar vestn." 1961, v. 8, no. 1, 7-15, Slovenian)

TEXT: This is a review on the development of ferrous and non-ferrous metallurgy in the FPR of Yugoslavia from 1939 to 1960, including the plans up to 1965. Ferrous metallurgy developed on the basis of the considerable extension of power supply; electric power production increased from 1,173 million kw-hours in 1939 to 8,106 million kw-hours in 1959 (by a factor of 7). During the same period coal output increased by a factor of 3, lignite by a factor of 8. To meet the requirements of ferrous metallurgy two coke plants were built: the one in Zenitsa with 3 batteries, the other in Lukavats with two batteries. In 1959 >1 million tons of metallurgical coke was produced. The production of crude oil increased from 1,000 to 600,000 tons/year. Fe-ore mining is conducted on 2 mines: 60% output is obtained at the Vares mine and 40% at the Ljulije mine; the yield was 2 million tons in 1959. All the ores are used for domestic purposes. The production of crude steel in 1960 attained 1.5 million tons  
Card 1/3

Development of Yugoslavian metallurgy

S/137/62/000/002/023/144  
A006/A101

(by 6 times more than in 1939) including electric steel > 100,000 tons (1939 - 2,800 tons). The Metallurgical Plant in Zenitsa is equipped with 3 blast furnaces with 6.15, 6.5 and 7.0 m hearth diameters, and produces 600,000 tons cast iron yearly; the annual output of steel is 750,000 tons and that of rolled metal 700,000 tons. The second plant in Yesenitsa with 2 blast furnaces produces yearly 120,000 tons of cast iron; 300,000 tons of steel, rolled metal etc. The third plant in Vares produces yearly 90,000 tons of cast iron. The new plant in Sisk is equipped with 2 blast furnaces with 3.2 m hearth diameter and 2 open-hearth furnaces; pipes are produced by the Mannesmann method. In Ravnyy there is a reconstructed high-quality steel melting and casting plant with 2 open-hearth, 2 electric-arc and 4 induction furnaces; the yearly output of this plant is 50,000 tons of cast steel. At the Shtory plant, a low-shaft electric blast furnace was mounted in 1951; it produces 90 - 100 tons of steel per day. A second furnace is being constructed. It is intended to erect a new plant in Skop'ye with blast furnace and steel-melting shops and a yearly output of 1 million tons of steel. The melting of crude copper from Cu-ores of the Borra mine was 40,000 tons in 1939; the same production was achieved in 1950 but decreased subsequently due to the exhaustion of the Cu-ore reserves down to

Card 2/3

Development of Yugoslavian metallurgy

S/137/62/000/002/023/144  
A006/A101

35,000 tons in 1957. The production of electrolytic copper in 1951 was 14,000 tons. At the present all the crude copper is refined by electrolytical means. The discovery of Cu ores in Maydanpek (50 km to the North from the Bora mine) with 0.8 - 1% Cu content will make it possible to increase considerably the melting of crude copper and the production of Cu articles (cables, etc) which will attain up to 65,000 tons by 1965. Pb production increased from 12,000 tons in 1939 to 85,400 tons in 1959; according to the plan 114,000 tons will be produced in 1965. Pb export in 1959 was 65,000 tons, from which 77% were exported to the USA and Western Europe and 21% to the Eastern European countries. Zn production was 4,900 tons in 1959 and 31,500 tons in 1959. Export of Zn concentrates in 1959 was 29,000 tons and that of Zn metal 11,000 tons, from which 2/3 was supplied to the Polish People's Republic and 1/3 to France. The yield of bauxites attained 800,000 tons in 1959, and  $Al_2O_3$  production was 57,000 tons; from this amount 20,000 tons was exported to Austria and the PPR. The production of Al metal increased from 1,800 tons in 1939 to 19,200 t in 1959. Other non-ferrous metals planned to be produced in 1965 will be: Zn 86,000; Al 75,000; Sb 2,900; Ag 550 and Cd 75 tons.

[Abstracter's note: Complete translation]

S. Glebov

Card 3/3

FETICH, Viktor, prof, onz. (Ljubljana)

Development of metallurgy in Yugoslavia. Hutnik P 28 no.9:  
321-325 S '61.

FETTSER, V., metodist

Izhevsk is a station of young technicians. Kryl.rod. 13 no.7:10  
Jl '62. (MIRA 16:2)

1. Respublikanskaya stantsiya yunikh tekhnikov, Udmurtskaya ASSR.  
(Udmurt A.S.S.R.--Airplanes--Models)

FETVADZHIEV, Vladimir; DONEV, Nikola; IANAKIEVA, El.

Some problems regarding the interrelations between the brand of oriental tobacco and water. Izv Inst tiutium BAN 1:51-72 '61.

1. Chlen na Redaktsionnata kolegia, "Izvestia na Tsentralnia nauchnoizsledovatel'ski institut po tiutiuna, Plovdiv" (for Donev and Fetvadshiev).



PAVLOV, K.; KOVACHEV, D.; TODOROV, F.; PETVADZHIEVA, N.; PAVLOV, P.

Plowing in the the stubble and the correct time for fall  
tilling of lixiviated chernozem-smonitza and carbonate-rich  
chernozem soils. Izv Inst "Nikola Pushkarov" 4:5-34 '62.

FETYUKOVA, V.

USSR/Chemistry - Organometallic Compounds Jun 51

"Splitting Off of Radicals From Fully Substituted Nonsymmetrical Tin Derivatives," G. Rezuvaev, V. Fetyukova

"Zhur Obshch Khim," Vol XXI, No 6, pp 1010-1015

Investigated photochem reaction of diethyl tin diphenyl with  $CCl_4$ ,  $CHCl_3$ , and  $CH_3OH$ . In all cases, the phenyl radical is split off and reacts further with the solvent. Examd photochem reaction of dibenzyl tin diphenyl with  $CCl_4$  and  $CHCl_3$ . In it the phenyl radical is also split off first. In the reaction of dibenzyl tin diphenyl with alc

186T20

USSR/Chemistry - Organometallic Compounds Jun 51  
(Contd)

sols of hydrogen chloride, benzene and dibenzyl tin dichloride were obtained. Upon heating of dibenzyl tin diphenyl with succinimide, phenyl and benzyl radicals are split off. Bromosuccinimide splits the benzyl radical from dibenzyl tin diphenyl, forming bromobenzene.

186T20

CA PETYUKOVA, V.

70

The reaction of radical cleavage from completely asymmetrical derivatives of tin. G. Razuvaev and V. Petyukova. *J. Gen. Chem. U.S.S.R.* 21, 1107-12(1951). (Unl. translation).—See *C.A.* 46, 1470c. B. R.

FETYUSHKIN, G.A.

Seven-year plan for the container industry. Trudy NIL Tary  
no.4:73-83 '60. (MIRA 14:12)  
(Container industry)

FETYUSHKIN, G.A.

Using returnable containers. Trudy NIL Tary no.4:95-98  
'60. (MIRA 14:12)

(Containers)

MUNTIU, N.; ANDRIAN, Tr.; FETZEANU, A.

Dynamics of antibodies in experimental glanders. Influence of synergic treatment with sulfathiazol and specific antigen on the appearance, development and disappearance of antibodies. Arch. roum. path. exp. microbiol. 23 no.3:643-648 S'63

1. Travail de l'Institut de Recherches Veterinaires et de Biopreparations "Pasteur", Bucarest.

MESKO, Kalman, dr.; FETZER, Agnes, dr.

Coincidence of factors causing hypokalemia. Orv. hetil. 106  
no.48:2281-2286 23 N '65.

1. Balassa Janos Korhaz, Belcsztaly, Szekszard (foorvos: Mesko,  
Kalman, dr.).

1ST AND 2ND COLUMNS																										3RD AND 4TH COLUMNS																									
1ST AND 2ND COLUMNS													3RD AND 4TH COLUMNS													5TH AND 6TH COLUMNS													7TH AND 8TH COLUMNS												
A																										B																									
C																										D																									
E																										F																									
G																										H																									
I																										J																									
K																										L																									
M																										N																									
O																										P																									
Q																										R																									
S																										T																									
U																										V																									
W																										X																									
Y																										Z																									
AA																										AB																									
AC																										AD																									
AE																										AF																									
AG																										AH																									
AI																										AJ																									
AK																										AL																									
AM																										AN																									
AO																										AP																									
AQ																										AR																									
AS																										AT																									
AU																										AV																									
AW																										AX																									
AY																										AZ																									
BA																										BB																									
BC																										BD																									
BE																										BF																									
BG																										BH																									
BI																										BJ																									
BK																										BL																									
BM																										BN																									
BO																										BP																									
BQ																										BR																									
BS																										BT																									
BU																										BV																									
BW																										BX																									
BY																										BZ																									
CA																										CB																									
CC																										CD																									
CE																										CF																									
CG																										CH																									
CI																										CJ																									
CK																										CL																									
CM																										CN																									
CO																										CP																									
CQ																										CR																									
CS																										CT																									
CU																										CV																									
CW																										CX																									
CY																										CZ																									
DA																										DB																									
DC																										DD																									
DE																										DF																									
DG																										DH																									
DI																										DJ																									
DK																										DL																									
DM																										DN																									
DO																										DP																									
DQ																										DR																									
DS																										DT																									
DU																										DV																									
DW																										DX																									
DY																										DZ																									
EA																										EB																									
EC																										ED																									
EE																										EF																									
EG																										EH																									
EI																										EJ																									
EK																										EL																									
EM																										EN																									
EO																										EP																									
EQ																										ER																									
ES																										ET																									
EU																										EV																									
EW																										EX																									
EY																										EZ																									
FA																										FB																									
FC																										FD																									
FE																										FF																									
FG																										FH																									
FI																										FJ																									
FK																										FL																									
FM																										FN																									
FO																										FP																									
FQ																										FR																									
FS																										FT																									
FU																										FV																									
FW																										FX																									
FY																										FZ																									
GA																										GB																									
GC																										GD																									
GE																										GF																									
GG																										GH																									
GI																										GJ																									
GK																										GL																									
GM																										GN																									
GO																										GP																									
GQ																										GR																									
GS																										GT																									
GU																										GV																									
GW																										GX																									
GY																										GZ																									
HA																										HB																									
HC																										HD																									
HE																										HF																									
HG																										HH																									
HI																										HJ																									
HK																										HL																									
HM																										HN																									
HO																										HP																									
HQ																										HR																									
HS																										HT																									
HU																										HV																									
HW																										HX																									
HY																										HZ																									
IA																										IB																									
IC																										ID																									
IE																										IF																									
IG																										IH																									
II																										IJ																									
IK																										IL																									
IM																										IN																									
IO																										IP																									
IQ																										IR																									
IS																										IT																									
IU																										IV																									
IW																										IX																									
IY																										IZ																									
JA																										JB																									
JC																										JD																									
JE																										JF																									
JG																										JH																									
JI																										JJ																									
JK																										JL																									
JM																										JN																									
JO																										JP																									
JQ																										JR																									
JS																										JT																									
JU																										JV																									
JW																										JX																									
JY																										JZ																									
KA																										KB																									
KC																										KD																									
KE																										KF																									
KG																										KH																									
KI																										KJ																									
KK																										KL																									
KM																										KN																									
KO																										KP																									
KQ																										KR																									
KS																										KT																									
KU																										KV																									
KW																										KX																									
KY																										KZ																									
LA																										LB																									
LC																										LD																									
LE																										LF																									
LG																										LH																									
LI																										LJ																									
LK																										LL																									
LM																										LN																									
LO																										LP																									
LQ																										LR																									
LS																										LT																									
LU																										LV																									
LW																										LX																									
LY																										LZ																									
MA																										MB																									
MC																										MD																									
ME																										MF																									
MG																										MH																									
MI																										MJ																									
MK																										ML																									
MM																										MN																									
MO																										MP																									
MQ																										MR																									
MS																										MT																									
MU																										MV																									
MW																										MX																									
MY																										MZ																									
NA																										NB																									
NC																										ND																									
NE																										NF																									
NG																										NH																									
NI																										NJ																									
NK																										NL																									
NM																										NN																									
NO																										NP																									
NQ																										NR																									
NS																										NT																									
NU																										NV																									
NW																										NX																									
NY																										NZ																									
OA																										OB																									
OC																										OD																									
OE																										OF																									
OG																										OH																									
OI																										OJ																									
OK																										OL																									
OM																										ON																									
OO																										OP																									
OQ																										OR																									
OS																										OT																									
OU																										OV																									
OW																										OX																									
OY																										OZ																									
PA																										PB																									
PC																										PD																									
PE																										PF																									
PG																										PH																									
PI																										PJ																									
PK																										PL																									
PM																										PN																									
PO																										PP																									
PQ																										PR																									
PS																										PT																									
PU																										PV																									
PW																										PX																									
PY																										PZ																									
QA																										QB																									
QC																										QD																									
QE																										QF																									
QG																										QH																									
QI																										QJ																									
QK																										QL																									
QM																										QN																									
QO																										QP																									
QQ																										QR																									
QS																										QT																									
QU																										QV																									
QW																										QX																									
QY																										QZ																									
RA																										RB																									
RC																										RD																									
RE																										RF																									
RG																										RH																									
RI																										RJ																									
RK																										RL																									
RM																										RN																									
RO																										RP																									
RQ																										RR																									
RS																										RT																									
RU																										RV																									
RW																										RX																									
RY																										RZ																									
SA																										SB																									
SC																										SD																									
SE																										SF																									
SG																										SH																									
SI																										SJ																									
SK																										SL																									
SM																										SN																									
SO																										SP																									
SQ																										SR																									
SS																										ST																									
SU																										SV																									
SW																										SX																									
SY																										SZ																									
TA																										TB																									
TC																										TD																									
TE																										TF																									
TG																										TH																									
TI																										TJ																									
TK																										TL																									
TM																										TN																									
TO																										TP																									
TQ																										TR																									
TS																										TT																									
TU																										TV																									
TW																										TX																									
TY																										TZ																									
UA																										UB																									
UC																										UD																									
UE																										UF																									
UG																										UH																									
UI																										UJ																									
UK																										UL																									
UM																										UN																									
UO																										UP																									
UQ																										UR																									
US																										UT																									
UU																										UV																									
UW																										UX																									
UY																										UZ																									
VA																										VB																									
VC																										VD																									
VE																										VF																									
VG																										VH																									
VI																										VJ																									
VK																										VL																									
VM																										VN																									
VO																										VP																									
VQ																										VR																									
VS																										VT																									
VU																										VV																									
VW																										VX																									
VY																										VZ																									
WA																										WB																									
WC																										WD																									
WE																										WF																									
WG																										WH																									
WI																										WJ																									
WK																										WL																									
WM																										WN																									
WO																										WP																									
WQ																										WR																									
WS																										WT																									
WU																										WV																									
WW																										WX																									
WY																										WZ																									
XA																										XB																									
XC																										XD																									
XE																										XF																									
XG																										XH																									
XI																										XJ																									
XK																										XL																									
XM																										XN																									
XO																										XP																									
XQ																										XR																									
XS																										XT																									
XU																										XV																									
XW																										XX																									
XY																										XZ																									
YA																										YB																									
YC																										YD																									
YE																										YF																									
YG																										YH																									
YI																										YJ																									
YK																										YL																									
YM																										YN																									
YO																										YP																									
YQ																										YR																									
YS																										YT																									
YU																										YV																									
YW																										YX																									
YY																										YZ																									
ZA																										ZB																									
ZC																										ZD																									
ZE																										ZF																									
ZG																										ZH																									
ZI																										ZJ																									
ZK																										ZL																									
ZM																										ZN																									
ZO																										ZP																									
ZQ																										ZR																									
ZS																										ZT																									
ZU																										ZV																									
ZW																										ZX																									
ZY																										ZZ																									



CA  
The composition and polymerization of actin. O. Feuer, R. Molnár, E. Pettkó, and F. B. Straub. *Hang. Acta. Physiol.* 1, 150-63 (1948). -To prep. actin, 100 g. of ice-cooled, fresh rabbit muscle is minced, suspended in 300 ml. ice-cold 0.3 M KCl soln. contg. sufficient 0.15 M K phosphate buffer soln. to maintain pH = 6.6, stirred for 10 min., treated with 1200 ml. distd. water, filtered, the residue suspended in 5 vols. of 0.4% soln. of  $\text{NaHCO}_3$  at 22-5°, kept at this temp. with continuous stirring for 30 min., filtered, the residue suspended in 1 vol. of a soln. 0.01 M in  $\text{NaHCO}_3$  and 0.01 M in  $\text{Na}_2\text{CO}_3$ , the temp. being kept below 10°, stirred for 10 min., dild. with 10 vols. of water at 22-5°, and filtered. For every 100 g. of residue is added 300 ml. of acetone at 22-5°, the mixt. stirred for 10 min., filtered, the residue treated with 1/2 the previous quantity of acetone, stirred 10 min., pressed out, and dried at room temp. One g. of the dry powder is treated with 20 vols. of  $\text{CO}_2$ -free water at room temp. for 15-20 min., and filtered. The soln. contains 4-8 mg. actin per ml. If an actin soln. free of salts is dild. with 10 vols. of acetone and a few drops of an acetate buffer of pH 4.0 is added, actin is pptd. and the lipides remain in soln.

After polymerization the actin soln. had an apparent sp. viscosity of 1.7. The amino acid contents (N contents of the respective amino acid as percentages of the total N content of amino acids) were tryptophan 0.22, tyrosine 1.45, phenylalanine 0.0, arginine 1.00, histidine 2.10, lysine 11.48, cystine 1.44, glutamic acid 5.40, aspartic acid 10.07, proline 5.08, hydroxyproline 1.22, glycine 8.30, and methionine 0.0; amide N was 11.50, uretd. N 10.0%. The Ca content of actin averaged 0.215%, the Mg content 0.000%. Since the soln. just passes a 10 $\mu$  collodion membrane prepd. according to Bechhold its mol. wt. cannot be higher than 70,000. The polymerization of actin observed on addn. of various salts caused no appreciable changes in the absorption spectrum. The rate of polymerization under the effect of univalent cations had a max. at concns. of 0.10-15 M. The effect of Mg ions apparently was due not so much to an increase in the velocity of polymerization as to a reduction of the time lag. Without Mg there seems to be no polymerization. Polymerization seems to be a series of reactions in which Mg affects the first step, without which reaction KCl cannot effect the polymerization of actin. Ca alone showed effects similar to those of Mg. In the presence of univalent ions, as K or Na, Ca

decreased the rate of polymerization. Oxidizing agents prevented the polymerization of actin, and even destroyed polymerized actin. If this oxidation is not too drastic the effect is reversible, i.e., on addn. of reducing substances the original polymerized actin can be reconstituted. The reconstitution decreased the stability. Mg ions seemed to combine with the oxidizable group and thus take part with this group in converting the particles of globular actin into particles of fibrous actin. Mg ions stabilized the products of polymerization against mechanical forces but seemed to make them more accessible to oxidizing agents. Actin gradually loses its ability to polymerize and to form actomyosin. This can be prevented by dialyzing against a soln. of boiled actin or against a dil. boiled muscle juice, or by washing the freeze-d. ppt. of actin with a dil. acetate buffer soln.

István Finkly

FEUER, G. 1948

(Inst. of Medical Chem. Szeged)

"Effect of Drugs on Actin."

Nature, 1948, 162/4110(217-218)

Abst: Exc. Med. 11, Vol. 11, No. 6, p. 709

11A

CA

Effect of drugs on actin. G. Feuz and P. H. Straub (Univ. Szege, Hung.). *Hung. Acta Physiol.* 2, 58-63 (1949)(in English).—Actin was prepd. by the method described in a former paper (C.A. 43, 9095d). The rate of polymerization of actin was detd. as a function of the K:Ca ratio, and the effect of acetylcholine, adrenaline, veratrine, quinine, and strychnine on the polymerization of actin was examd. Acetylcholine had no effect, adrenaline enhanced, and the others inhibited the polymerization. It is supposed that the polymerization of actin is the result of several catalytic processes. The catalytic protein may be actin itself, or, less probably, several proteins may contaminate the protein of actin. The relative concn. of these catalytic centers may be different in the various actin preps., and this may be the cause of divergent results. Actin seems to consist of only one protein component, contg. a prosthetic group. The peculiar dependence of the action of adrenaline, veratrine, and quinine on the K:Ca ratio suggests that these drugs act on specific processes. Adrenaline seems to act on one process which is not the limiting factor at physiol. Ca:K ratios. István Földi

ca

117

Does an actomyosin fiber correspond to a model of muscle?  
 Maria Wollemann, György Pezer, and F. Bruno Straub  
 (Univ. Budapest). *Acta Physiol. Acad. Sci. Hung.* 1,  
 34-43 (1950) (in German).—Sols. of actomyosin (1.5% in  
 0.5 M KCl) formed fibers when pressed through cap-  
 illaries. The actomyosin soln. consisted of a 5:2 mixt. of  
 cryst. myosin and polymerized actin. The capillaries  
 through which the protein soln. was blown were in 0.05  
 M KCl and 0.005 M  $MgSO_4$ . The change in the mass of the  
 fibers was then examd. microscopically and by double  
 refraction after suspension in 0.05 cc. 1% adenosine tri-  
 phosphate (ATP). In a 2nd series of expts.  $MgSO_4$  was sub-  
 stituted by 0.005 M  $ZnSO_4$ . The following results were ob-  
 tained: Addn. of ATP caused syneresis; actomyosin fibers  
 treated with  $Zn^{++}$  indicate syneresis if just slightly oriented,  
 but an anisodiametric contraction in the cases of real  
 orientation. In cases in which glycerol was present, similar  
 phenomena were observed which could be traced back to  
 impurities of metal ions. Gertrude E. Perlmann

1951

C.A.

11A

Adenosine triphosphate as a functional group of actin.  
Bruno P. Straub and György Feuer (Univ. Steged, Hung.).  
*Kisérlet Orvostudomány* 2, 141-51 (1930).—Actin in its  
globular form contains adenosine triphosphate (ATP) 0.8%  
1.47%. The compn. of the salt  $\text{Hae} \cdot \text{ATP} \cdot 4\text{H}_2\text{O}$  is N 7.07,  
inorg. P 0.42, total P 9.4, and ribose 17.6% (Meijbaum).  
The ATP of actin is transformed to adenosine diphosphate  
(ADP), with formation of inorg. phosphate, when the pro-  
tein of actin is polymerized by a salt. This polymerization  
and an increase of viscosity in actin took place under the effect  
of any salt at any temp., and at any pH. Depolymeriza-  
tion occurs when ADP is reconverted to ATP in the protein  
of actin. This process plays a significant role in muscle  
contraction. Apyrase prepd. from potato decompd. only  
a small fraction of ATP in a soln. of globular actin, but very  
vigorously decompd. solns. of actin denatured by heat  
treatment or of polymerized actin. An analogy seems to  
exist between polymerization of actin and activity of phos-  
phorylase: inorg. phosphate is freed during both processes.  
Pure actin contained no trace of enzymes; the transforma-  
tion  $\text{ATP} \rightarrow \text{ADP}$  is therefore a nonenzymic activity.  
István Finály

1450

Adenosine triphosphate, the functional group of actin.  
 P. B. Straub and G. Peuer (Univ. Szeged, Hung.). *Biochim. et Biophys. Acta*, 4, 455-70(1950)(in English).—  
 When actin polymerizes upon addn. of any salt, 40-80% of the ATP it contains disappears. Whether polymerization or disappearance of ATP is the primary process could not be decided, but it was found that 1.18 mols. inorg. P were formed per mol. ATP which disappeared, that this is a true dephosphorylation and not a transphosphorylation (no labile phosphate esters are formed), and that probably ADP is formed. Evidence is furnished by incubation of a  $\text{Cl}_2\text{CC}(\text{OH})$  filtrate of polymerized actin with myokinase which increases the ATP content markedly after 30 min. It appears that polymerization of actin is connected with simultaneous formation of ADP and inorg. P from the ATP present in actin; thus, globular actin is ATP-actin, and ADP-actin, if formed, is in the fibrous state. When incubated with purified potato apyrase, it could be demonstrated that the ATP in actin is bound to the protein, because both polymerized actin and denatured actin reacted with the apyrase analogously to its decompn. of free ATP. From dialysis expts. it was concluded that ATP, which can be removed only after long dialysis, is in dissoci. equil. with the protein. Incubation of actin with a large excess of apyrase resulted in the formation of a protein whose ability to polymerize was inhibited. It was also shown that the inactivation of actin during dialysis and isoelec. washing is due to disappearance of ATP. Boiled muscle exts. and ATP prevent this inactivation, as will also reducing substances, like vitamin C (probably by strengthening the protein-ATP bond). Studies in the reversibility of the polymerization showed that upon dialysis of polymerized actin against ATP and vitamin C, a globular form could be regenerated which in all respects behaved like the original starting material.  
 Eric Ellenbogen

FEUER, Gy, 1951

(Biochemical Inst. Univ. Budapest)

"To What Degree can Actomyosin Filaments be Regarded as Muscle Model?"

Acta Physiol. Budapest, 1951 2/1 suppl (6)  
No abstr. in Exc. Med.



FINDER, G.; FRIGYES, A.

Relation of muscular dystrophy in E-avitaminosis to the structural proteins of muscular tissue. Kiserletes orvostud. 3 no.2:96-104 1951. (CLML 21:1)

1. Medical Chemistry Institute, Budapest University.

FEUER, G.; FRIGYES, A.

Change of adenosinetriphosphatase activity in the case of muscular dystrophy due to vitamin E deficiency. Acta physiol. hung. 3 no.1:1-13 1952.  
(CLML 24:3)

1. Of the Institute of Medical Chemistry of Budapest University.

FEUER, G.; WOLLEMAN, M.

Studies on the mechanism of actin polymerisation. I. The significance of protein-bound adenosinetriphosphate in polymerization. Acta physiol. hung. 3 no.2:267-276 1952. (CLML 24:3)

1. Of the Institute of Medical Chemistry of Budapest University.

FEUER, G.; WOLLEMAN, M.

Studies on the mechanism of actin polymerisation II. The role of  
ATP-creatinephosphoferase in polymerization. Acta physiol. hung. 3 no.2:  
277-296 1952. (CML 24:3)

1. Of the Institute of Biochemistry of the Hungarian Academy of  
Sciences.

WOLLEMAN, M.; FEUER, G.

The isolation of ATP-creatinephosphoferase from rabbit actin and the study of its properties. Acta physiol. hung. 3 no.2:297-309 1952.  
(CML 24:3)

1. Of the Institute of Biochemistry of the Hungarian Academy of Sciences.

FEUER, G.; WOLLEMAN, M.

Study of the polymerisation mechanism of actin. I. Significance of the protein-bound adenosinetriphosphate (adenosinediphosphate). Kiserletes orvostud. 4 no. 6:436-443 Dec 1952. (GLML 24:1)

1. Institute of Forensic Chemistry, Budapest Medical University.

FEUER, G.; WOLLEMAN, M.

Study of the polymerisation mechanism of actin. II. The role of creatine phosphatase in the transformation. Kiserletes orvostud. 4 no. 6:443-456 Dec 1952. (GLML 24:1)

1. Institute of Biochemistry of the Hungarian Academy of Sciences.

FEUER, GY

Banga, I.; Feuer, Gy.; Wollemann, M.

"The Enzymatic Breakdown of Variouslly Prepared Elastins." p. 32 (Acta Physiologica.  
Supplement to v. 4, 1953, Budapest.)

SO: Monthly List of East European Accessions. Vol. 3, No. 6, Library of Congress, June.  
1954, Uncl.



FEUER G.

Biochem. Inst., Ungarische Akad. der Wissenschaften, Budapest. \*Untersuchungen  
über den biochemischen Mechanismus der Muskelkontraktion. Biochemical mechanism of  
muscle contraction ACTA PHYSIOL. ACAD. SCIENT. HUNG. (Budapest) 1954, 5/suppl. (9-10)

SO: <sup>c</sup>EXERPTA MEDICA, Section II Vol. 7 No. 11

FEVER, Gy

FEVER, Gy

3 The binding of actin and myosin. Gy. FEVER and M. Wollemann (Hung. Acad. Sci., Budapest); *Physiol. Acad. Sci. Hung.* 5, 31-42 (1954) (in German); *J. C.A.* 47, 7655a. --If adenosinetriphosphatase and creatinephosphatase (II) are removed from actin, actin will combine very poorly with myosin. With the addn. of I to a mixt. of actin and myosin, actomyosin is again formed. The reaction is catalyzed by bivalent cations. A phosphate transfer takes place during the reaction in that the creatinephosphate content decreases. The reaction is reversible as the creatine phosphate increases after the addn. of adenosinetriphosphate. If the activity of I is inhibited, the synthesis of actomyosin does not take place.

A. Dietz

FEVER, G. - FEVER

The phosphate transfer during the contraction is wasted  
acid noers. Gy. Feur (Hung Acad Sc., Budapest)  
The eggs were done on the 25th of March of 1941.

✓ Origin of acetyl coenzyme A in brain tissue. Gr. Feller  
and M. Wollemann. (Hung. Acad. Sci. Budapest.)  
Physiol. Acad. Sci. Hung. 5, 213-218 (1954) (for German).  
With 0.05M KCl to inhibit dephosphorylation an ex- of  
acetone-dried brain (I) transcribe (a  $^{14}C$ ) from adenine  
triphosphate (ATP) to coenzyme A (CoA) as indicated by  
equiv. decreases in ATP and SH. CoA was synthesized by  
I from acetate and choline when phosphoryl-CoA or CoA  
and ATP were present. S. Ellis

Feuer, G.

HUNG

Synthesis of acetyl-coenzyme A in brain extracts. G. Feuer and M. Wollemaun *Acta physiol. Acad. Sci. hung.*, 1954, 6, 553-555.—Extracts of the acetone powder of brain synthesize, in the presence of ATP, CoA, and KF, phosphoryl CoA. During the synthesis the ATP is split to ADP. The transfer of phosphoryl radical takes place with a corresponding diminution of SH groups. Phosphoryl-CoA is capable of acetylating choline without added ATP in the presence of added choline acetate and brain extract. In this stage the phosphoryl radical of phosphoryl-CoA is substituted by an acetyl group which is then transferred to the choline. This stage was proved by synthetic phosphoryl-CoA.

A. B. L. BERNARD

Feuer, Gy.

Changes in creatine phosphate during muscle contraction.  
Gy. Feuer (Ungar. Akad. Wiss., Budapest). *Acta Physiol.  
Hung. Sci. Hung.* 7, 13-20 (1956) (in German); cf. *C.A.* 48,  
10705d. -- Frog sartorius and gastrocnemius muscles in-  
cubated at 0° for 0.5-2.5 hrs., were caused to contract by  
immersion in liquid air. The corresponding muscles were  
maintained in a relaxed condition by incubation at -10°  
for 0.5-2.5 hrs., followed by immersion in liquid air. The  
amts. of creatine phosphate (I) and adenosinetriphosphate  
(II) (γ/mg. of dry substance) present in relaxed and con-  
tracted gastrocnemius muscle were 2.91, 4.61 and 18.5,  
14.1, and in sartorius muscle 2.15, 3.88 and 18.4, 14.4,  
resp. Similar differences in the adenosinemonophosphate  
and adenosinediphosphate contents of relaxed and con-  
tracted muscles were not observed. In expts. conducted  
during the winter months, both the II and I contents of re-  
laxed muscle were less than those of the corresponding con-  
tracted muscle.  
Erwin L. Sexton

150 Phosphate  
co-analyte-A in brain. M. Wodemann and G. Feller. *Acta physiol.*  
*Acad. Sci. Hung.* 1935. 7. 1-12. (In German.)

PO<sub>4</sub> on to CoA. If there are no other

... of ...  
...-enzyme-A in brain.  
... of ... long ... 1983 ...  
... of ...



FEUER, G.

668. An enzyme system from brain extracts that acetylates glutathione. G. Feuer *Acta physiol. Acad. Sci. hung.*, 1956, 8, 393-398 (Biol. Inst., Hung. Acad. Sci. Budapest, Hungary). Cattle and rat brain, mostly grey matter, were extracted by the method previously described (*ibid.*, 1954, 7, 343). The reduced glutathione (GSH) was obtained from yeast. CoA from pig liver, GSH was determined iodometrically, acetyl-GSH was determined by the method of Lipmann and Tuttle. In the presence of CoA, ATP, MgSO<sub>4</sub>, and acetate GSH, but not CoA, is acetylated by this brain extract. It was previously shown that the brain extract contains an enzyme system which transfers the terminal PO<sub>4</sub> of ATP to CoA. This reaction is inhibited by the addition of GSH. (German)

A. B. L. BENZAK

Feyer, Gy.

*med* Synthesis and properties of phosphoryl-coenzyme A  
 Gy. Feyer and M. Wollmann (Biochem. Inst. Baza Fischer  
 Akad. Wiss. Budapest). *Acta Physiol. Hung. Sci. Hung.*  
 10, 1-10 (1956) (in German). — Coenzyme A (Co A) was  
 isolated from hog liver by the method of Lehner (C. A. 47,  
 39166). Thirty mg. Co A powder (90% pure) was dis-  
 solved in 5 ml. H<sub>2</sub>O and neutralized with pyridine to pH 7.  
 To the stirring soln. at 0°, 1 ml. of freshly dist. POCl<sub>3</sub>  
 was added dropwise over a 2-hr. period (C. A. 33, 16707),  
 as was about 0.5 ml. pyridine. After the last addn. the  
 stirring at 0° was continued for 30 min. The mixt. was  
 neutralized with 30% NaOH and held at -10°. The  
 Na<sub>2</sub>PO<sub>4</sub> was centrifuged off, washed with 2 ml. H<sub>2</sub>O, and the  
 washings added to the supernatant. The soln. (7 ml.) was  
 adjusted to pH 4-4.2 with N H<sub>2</sub>SO<sub>4</sub> and 1 vol. of Me<sub>2</sub>CO  
 added. The resulting ppt. was added to 2 vol. of Me<sub>2</sub>CO  
 and allowed to stand at 0° for 1-2 hrs. This ppt. was  
 washed with cold 75% Me<sub>2</sub>CO and dissolved in 2-3 ml. H<sub>2</sub>O.  
 To this soln. was added 0.1 vol. of N HCl and 0.1 vol. of  
 10% CaCl<sub>2</sub> and the ppt. brought down with 2 vols. Me<sub>2</sub>CO.  
 Further ppt. formed on standing at 0°. The ppt. was  
 washed with 60% Me<sub>2</sub>CO, dissolved in H<sub>2</sub>O, reprecipd., washed,  
 and dried. (Yield 20 mg. phosphoryl-Co A (P-Co A) as Ca  
 salt, 97.5% pure). Analysis: N (Kjeldahl) 63.2, inorg. P  
 (Fiske-Sutbarow) 8.6, P (10 min., 100° N H<sub>2</sub>SO<sub>4</sub> hydroly-  
 sis) 43.8, P (180 min., 100° N H<sub>2</sub>SO<sub>4</sub> hydrolysis) 56.5, P  
 (total) 93.4, adenine (Knicker) 87.4, ribose (Mehault)  
 100.2 %/mg. The P-Co A was stable as the dry salt, in neu-  
 tral or acid soln., but decompd. at room temp. in alk. medium.  
 After brief hydrolysis of the free acid, obtained by (COOH)<sub>2</sub>  
 treatment, the P-Co A gave a pos. nitroprusside tes. Both  
 Co A and P-Co A had absorption max. at 212-14 and 260 mμ.  
 F. J. Bates

2

FEUER, Gy.

2  
Formation of succinyl coenzyme A and succinylcholine in cerebral extracts. M. Wollmann and Gy. Feuer (Staat. Inst. Neurochir., Budapest). *Acta Physiol. Acad. Sci. Hung.* 10: 445-7 (1956) (in German). In the presence of extractives of acetone-dried bovine or human brain, succinylcholine is produced by the action of succinyl coenzyme A. Succinylcholine is produced as much if not more than acetylcholine on the respective substrate. Succinylcholine plays an important physiol. role in brain tissue.  
Rachel Brown

FEUER, GY.

Paper chromatographic determination of the hormones in thyroid glands. p. 354.  
(MAGYAR KEMIKUSCK LAPJA. Vol. 11, no. 11/12, Dec. 1956. Hungary)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 6, June 1957. Uncl.